

## ABSTRACT

### NEUTRAL DENSITY DICHROIC OPTICAL FILTER

5           An optical thin film stack provides reflection of essentially all light except for a  
selected amount of transmission over a selected wavelength range. Reflecting, rather than  
absorbing, unwanted light avoids heating caused by light absorption and allows productive  
use of the non-transmitted light in some applications. In some embodiments, reflector  
designs are “stacked” on an optical substrate to provide serial optical reflectors. Stacking  
10   dichroic filters provides reduced sensitivity to cone angle and manufacturing advantages.